Mikko MetsÃ¤-KetelÃ¤

List of Publications by Year
in descending order

63 papers	2,513 citations	257450 24 h-index	206112 48 g-index
67 all docs	67 docs citations	67 times ranked	3179 citing authors

#	Article	IF	Citations
1	Minimum Information about a Biosynthetic Gene cluster. Nature Chemical Biology, 2015, 11, 625-631.	8.0	715
2	Activation of microbial secondary metabolic pathways: Avenues and challenges. Synthetic and Systems Biotechnology, 2018, 3, 163-178.	3.7	157
3	An efficient approach for screening minimal PKS genes from Streptomyces. FEMS Microbiology Letters, 1999, 180, 1-6.	1.8	139
4	Molecular Evolution of Aromatic Polyketides and Comparative Sequence Analysis of Polyketide Ketosynthase and 16S Ribosomal DNA Genes from Various Streptomyces Species. Applied and Environmental Microbiology, 2002, 68, 4472-4479.	3.1	126
5	An efficient approach for screening minimal PKS genes from Streptomyces. FEMS Microbiology Letters, 1999, 180, 1-6.	1.8	113
6	Targeted activation of silent natural product biosynthesis pathways by reporter-guided mutant selection. Metabolic Engineering, 2015, 28, 134-142.	7.0	67
7	Engineering Anthracycline Biosynthesis toward Angucyclines. Antimicrobial Agents and Chemotherapy, 2003, 47, 1291-1296.	3.2	61
8	Crystal Structures of Two Aromatic Hydroxylases Involved in the Early Tailoring Steps of Angucycline Biosynthesis. Journal of Molecular Biology, 2007, 372, 633-648.	4.2	59
9	Structural basis for C-ribosylation in the alnumycin A biosynthetic pathway. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 1291-1296.	7.1	58
10	Characterization of the Alnumycin Gene Cluster Reveals Unusual Gene Products for Pyran Ring Formation and Dioxan Biosynthesis. Chemistry and Biology, 2008, 15, 1046-1057.	6.0	50
11	Synthetic Remodeling of the Chartreusin Pathway to Tune Antiproliferative and Antibacterial Activities. Journal of the American Chemical Society, 2013, 135, 17408-17416.	13.7	47
12	Partial Activation of a Silent Angucycline-type Gene Cluster from a Rubromycin .BETA. Producing Streptomyces sp. PGA64. Journal of Antibiotics, 2004, 57, 502-510.	2.0	45
13	Biosynthetic Conclusions from the Functional Dissection of Oxygenases for Biosynthesis of Actinorhodin and Related Streptomyces Antibiotics. Chemistry and Biology, 2013, 20, 510-520.	6.0	45
14	Anthracyclines: biosynthesis, engineering and clinical applications. Natural Product Reports, 2022, 39, 814-841.	10.3	45
15	Divergent non-heme iron enzymes in the nogalamycin biosynthetic pathway. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 5251-5256.	7.1	44
16	Sequential Action of Two Flavoenzymes, PgaE and PgaM, in Angucycline Biosynthesis: Chemoenzymatic Synthesis of Gaudimycin C. Chemistry and Biology, 2008, 15, 157-166.	6.0	37
17	Discovery of the Showdomycin Gene Cluster fromStreptomyces showdoensisATCC 15227 Yields Insight into the Biosynthetic Logic of C-Nucleoside Antibiotics. ACS Chemical Biology, 2017, 12, 1472-1477.	3.4	37
18	Artificial Reconstruction of Two Cryptic Angucycline Antibiotic Biosynthetic Pathways. ChemBioChem, 2007, 8, 1577-1584.	2.6	36

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19	Biosynthetic pathway toward carbohydrate-like moieties of alnumycins contains unusual steps for C-C bond formation and cleavage. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 6024-6029.	7.1	36
20	Effective Antibiofilm Polyketides against Staphylococcus aureus from the Pyranonaphthoquinone Biosynthetic Pathways of Streptomyces Species. Antimicrobial Agents and Chemotherapy, 2015, 59, 6046-6052.	3.2	35
21	Identification of Lateâ€Stage Glycosylation Steps in the Biosynthetic Pathway of the Anthracycline Nogalamycin. ChemBioChem, 2012, 13, 120-128.	2.6	34
22	Discovery of a Two-Component Monooxygenase SnoaW/SnoaL2 Involved in Nogalamycin Biosynthesis. Chemistry and Biology, 2012, 19, 638-646.	6.0	32
23	Divergent evolution of an atypical <i>S</i> -adenosyl- <scp>l</scp> -methionineâ€“dependent monooxygenase involved in anthracycline biosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 9866-9871.	7.1	31
24	Biosynthesis of pyranonaphthoquinone polyketides reveals diverse strategies for enzymatic carbonâ€“carbon bond formation. Current Opinion in Chemical Biology, 2013, 17, 562-570.	6.1	29
25	Tailoring Enzymes Involved in the Biosynthesis of Angucyclines Contain Latent Context-Dependent Catalytic Activities. Chemistry and Biology, 2012, 19, 647-655.	6.0	26
26	Flavoprotein Hydroxylase PgaE Catalyzes Two Consecutive Oxygen-Dependent Tailoring Reactions in Angucycline Biosynthesis. Biochemistry, 2011, 50, 5535-5543.	2.5	25
27	Ketosynthase III as a gateway to engineering the biosynthesis of antitumoral benastatin derivatives. Journal of Biotechnology, 2009, 140, 107-113.	3.8	22
28	A pharmaceutical model for the molecular evolution of microbial natural products. FEBS Journal, 2020, 287, 1429-1449.	4.7	22
29	Anthracycline Biosynthesis: Genes, Enzymes and Mechanisms. Topics in Current Chemistry, 2007, , 101-140.	4.0	21
30	Tracing the Evolution of Angucyclinone Monooxygenases: Structural Determinants for C-12b Hydroxylation and Substrate Inhibition in PgaE. Biochemistry, 2013, 52, 4507-4516.	2.5	20
31	Molecular evolution of the bacterial pseudouridineâ€5â€²â€phosphate glycosidase protein family. FEBS Journal, 2014, 281, 4439-4449.	4.7	18
32	Characterization of C-nucleoside Antimicrobials from Streptomyces albus DSM 40763: Strepturidin is Pseudouridimycin. Scientific Reports, 2019, 9, 8935.	3.3	18
33	Crystal structure of the glycosyltransferase SnogD from the biosynthetic pathway of nogalamycin in <i>Streptomycesâ€ƒnogalater</i>. FEBS Journal, 2012, 279, 3251-3263.	4.7	17
34	Chemoenzymatic Synthesis of Novel C-Ribosylated Naphthoquinones. ACS Chemical Biology, 2013, 8, 2377-2382.	3.4	16
35	Characterization and overproduction of cell-associated cholesterol oxidase ChoD from Streptomyces lavendulae YAKB-15. Scientific Reports, 2019, 9, 11850.	3.3	16
36	Structural and Functional Analysis of Angucycline C-6 Ketoreductase LanV Involved in Landomycin Biosynthesis. Biochemistry, 2013, 52, 5304-5314.	2.5	15

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37	Genotyping-Guided Discovery of Persiamycin A From Sponge-Associated Halophilic Streptomonospora sp. PA3. Frontiers in Microbiology, 2020, 11, 1237.	3.5	15
38	Enzymatic Synthesis of the C-Glycosidic Moiety of Nogalamycin R. ACS Chemical Biology, 2018, 13, 2433-2437.	3.4	14
39	Structure-Based Engineering of Angucyclinone 6-Ketoreductases. Chemistry and Biology, 2014, 21, 1381-1391.	6.0	13
40	Oxazinomycin arrests RNA polymerase at the polythymidine sequences. Nucleic Acids Research, 2019, 47, 10296-10312.	14.5	11
41	Structural characterization of three noncanonical NTF2-like superfamily proteins: implications for polyketide biosynthesis. Acta Crystallographica Section F, Structural Biology Communications, 2020, 76, 372-383.	0.8	11
42	Potent Inhibitor of Human Trypsins from the Aeruginosin Family of Natural Products. ACS Chemical Biology, 2021, 16, 2537-2546.	3.4	11
43	Insights into Complex Oxidation during BE-7585A Biosynthesis: Structural Determination and Analysis of the Polyketide Monooxygenase BexE. ACS Chemical Biology, 2016, 11, 1137-1147.	3.4	10
44	Characterization of the Two-Component Monooxygenase System AlnT/AlnH Reveals Early Timing of Quinone Formation in Alnumycin Biosynthesis. Journal of Bacteriology, 2012, 194, 2829-2836.	2.2	9
45	Evolution inspired engineering of antibiotic biosynthesis enzymes. Organic and Biomolecular Chemistry, 2017, 15, 4036-4041.	2.8	9
46	Evolutionary Trajectories for the Functional Diversification of Anthracycline Methyltransferases. ACS Chemical Biology, 2019, 14, 850-856.	3.4	9
47	A Nested Gene in Streptomyces Bacteria Encodes a Protein Involved in Quaternary Complex Formation. Journal of Molecular Biology, 2008, 375, 1212-1221.	4.2	8
48	Biosynthetic Anthracycline Variants. Topics in Current Chemistry, 2008, , 75-99.	4.0	8
49	The mechanism of the nucleo-sugar selection by multi-subunit RNA polymerases. Nature Communications, 2021, 12, 796.	12.8	8
50	Alnumycins A2 and A3: new inverse-epimeric pairs stereoisomeric to alnumycin A1. Tetrahedron: Asymmetry, 2012, 23, 670-682.	1.8	7
51	Pathway Engineering of Anthracyclines: Blazing Trails in Natural Product Glycodiversification. Journal of Organic Chemistry, 2020, 85, 12012-12023.	3.2	7
52	Functional and Structural Insights into a Novel Promiscuous Ketoreductase of the Lugdunomycin Biosynthetic Pathway. ACS Chemical Biology, 2020, 15, 2529-2538.	3.4	7
53	Single cell mutant selection for metabolic engineering of actinomycetes. Metabolic Engineering, 2022, 73, 124-133.	7.0	7
54	Epimers vs. inverse epimers: the C-1 configuration in alnumycin A1. RSC Advances, 2012, 2, 5098.	3.6	6

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55	Biosynthesis of Diverse Type II Polyketide Core Structures in Streptomyces coelicolor M1152. ACS Synthetic Biology, 2021, 10, 243-251.	3.8	6
56	Formation of 5-Hydroxy-3-methoxy-1,4-naphthoquinone and 8-Hydroxy-4-methoxy-1,2-naphthoquinone from Juglone. ISRN Organic Chemistry, 2012, 2012, 1-7.	1.0	5
57	The role of the maleimide ring system on the structure-activity relationship of showdomycin. European Journal of Medicinal Chemistry, 2022, 237, 114342.	5.5	4
58	The potential of VCD to resolve the epimer vs. inverse epimer quandary. Computational and Theoretical Chemistry, 2012, 992, 156-163.	2.5	3
59	Laboratory course on <i>Streptomyces</i> genetics and secondary metabolism. Biochemistry and Molecular Biology Education, 2016, 44, 492-499.	1.2	3
60	The Rieske Oxygenase SnoT Catalyzes 2â€²â€²â€Hydroxylation of l â€Rhodosamine in Nogalamycin Biosynthesis. ChemBioChem, 2020, 21, 3062-3066.	2.6	3
61	Evolutionâ€guided engineering of nonâ€heme iron enzymes involved in nogalamycin biosynthesis. FEBS Journal, 2020, 287, 2998-3011.	4.7	2
62	Chimeragenesis for Biocatalysis. , 2019, , 389-418.		1
63	Deciphering the Origin and Formation of Aminopyrrole Moiety in Kosinostatin Biosynthesis. Chinese Journal of Chemistry, 0, , .	4.9	1